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APPLN. FILING DATE: JULY 8, 2004
TITLE: EFFICIENT NUCLEIC ACID ENCAPSULATION
TO MEDIUM SIZED LIPOSOMES
INVENTOR(S): SHANGGUAN TONG ET AL.
APPLN. SERIAL No.: 033388-590

SHEET 1 OF 9

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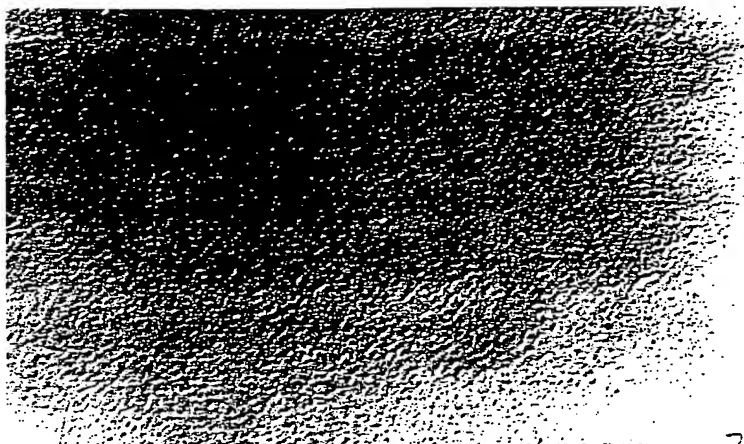


FIG. 1A

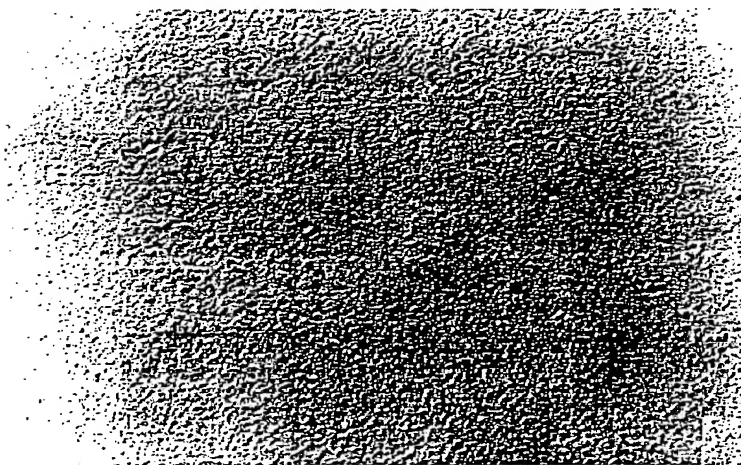


FIG. 1B

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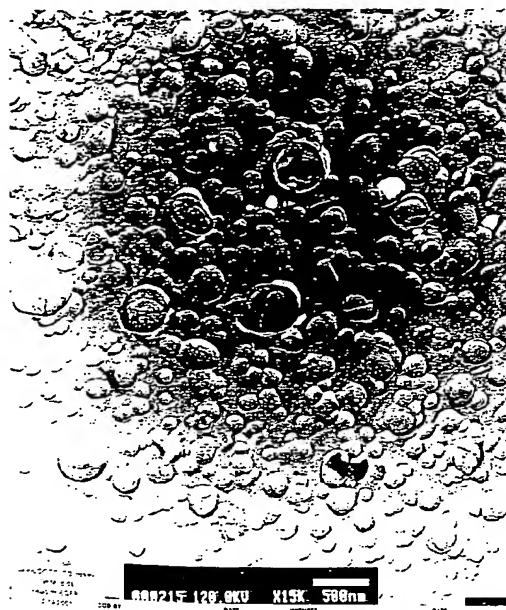


FIG. 2



FIG. 3

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Sample #	DNA	DNA Conc. ($\mu\text{g/ml}$)	Lipid Conc. (mM)	DNA/Lipid ($\mu\text{g}/\mu\text{mole}$)	% of Retention	Particle Size (nm)
#1	EGFP	39.3	22.0	1.8	27%	170/210/227
#2	EGFP	71.1	35.3	2.0	30%	172/229/255
#3	PGL-3	142.0	53.2	2.7	40%	162/222/250
#4	PGL-3	191.0	79.5	2.4	36%	193/210/218
Theoretical Value		200	30	6.7	100%	

FIG. 4

FIG. 5

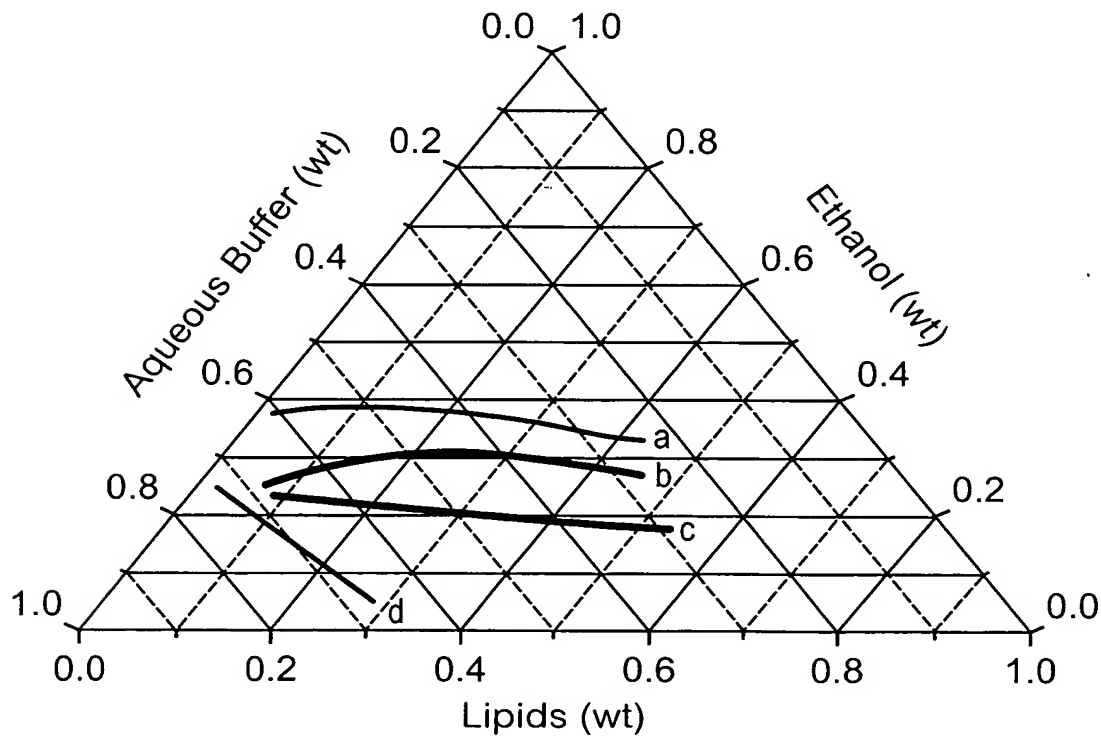
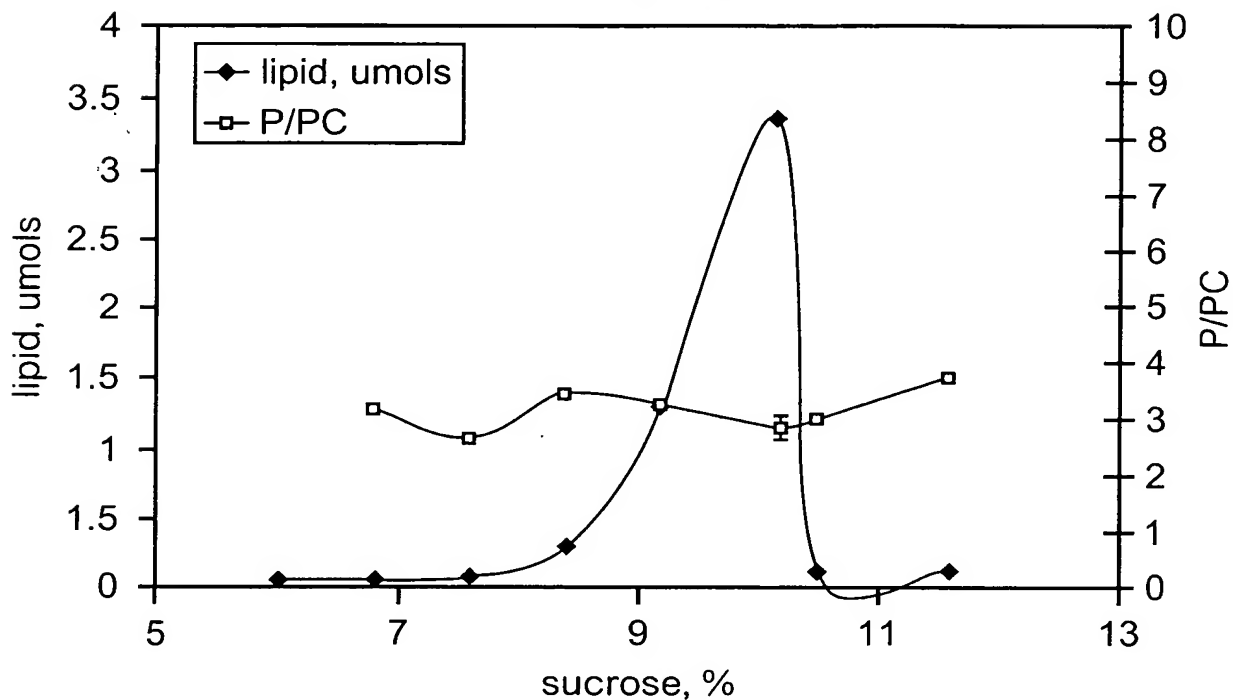


FIG. 6

FIG. 7

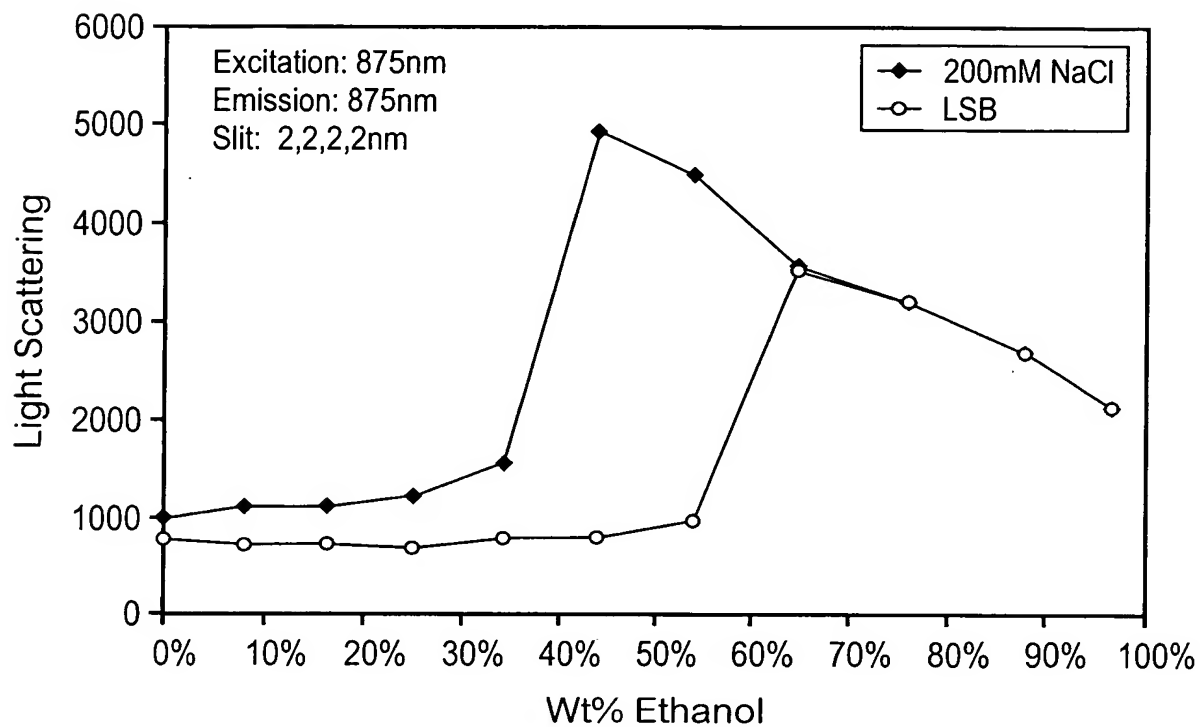


FIG. 8

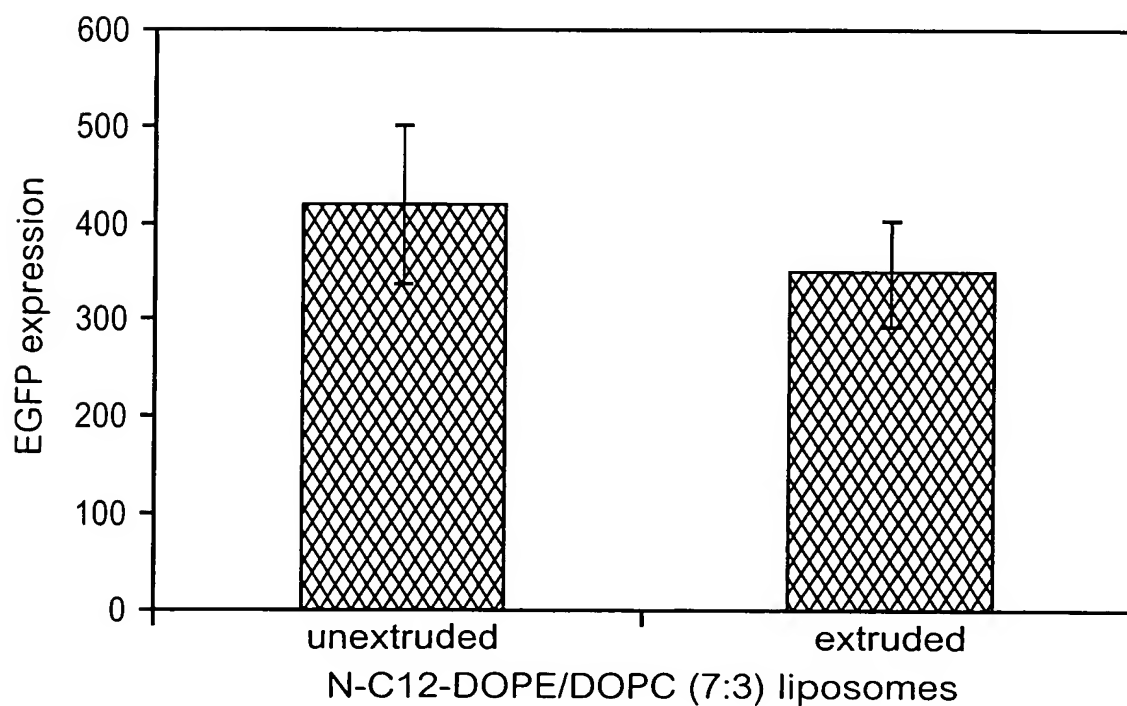


FIG. 9

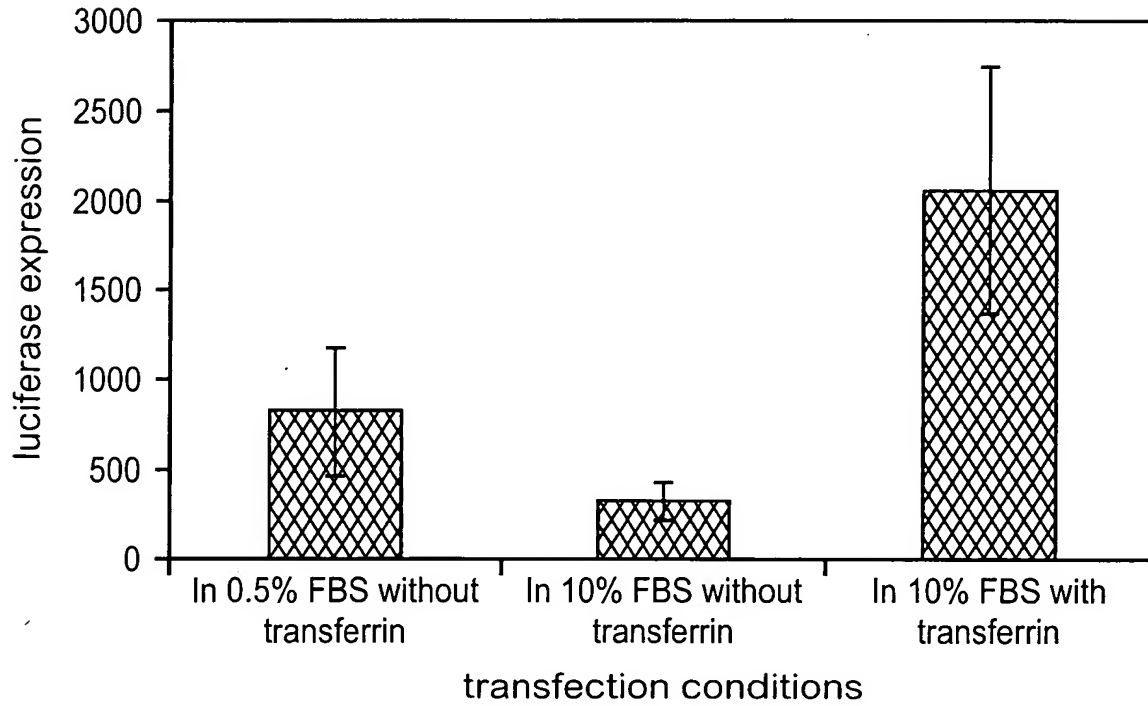


FIG. 10

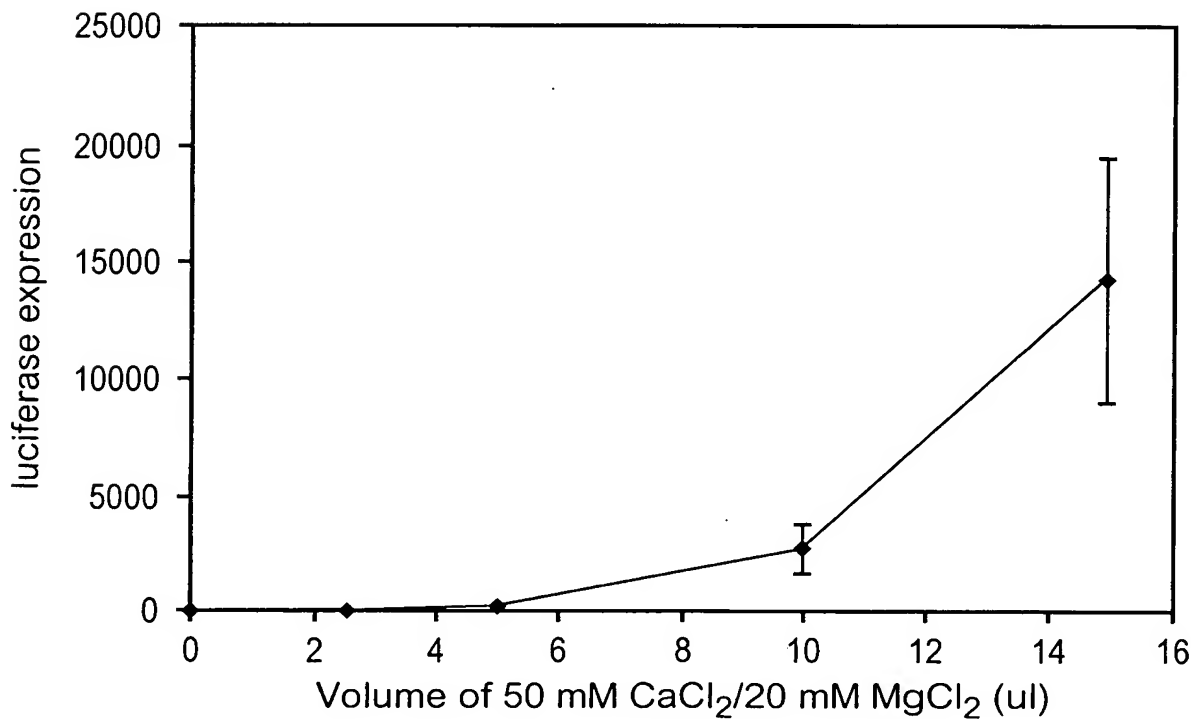


FIG. 11

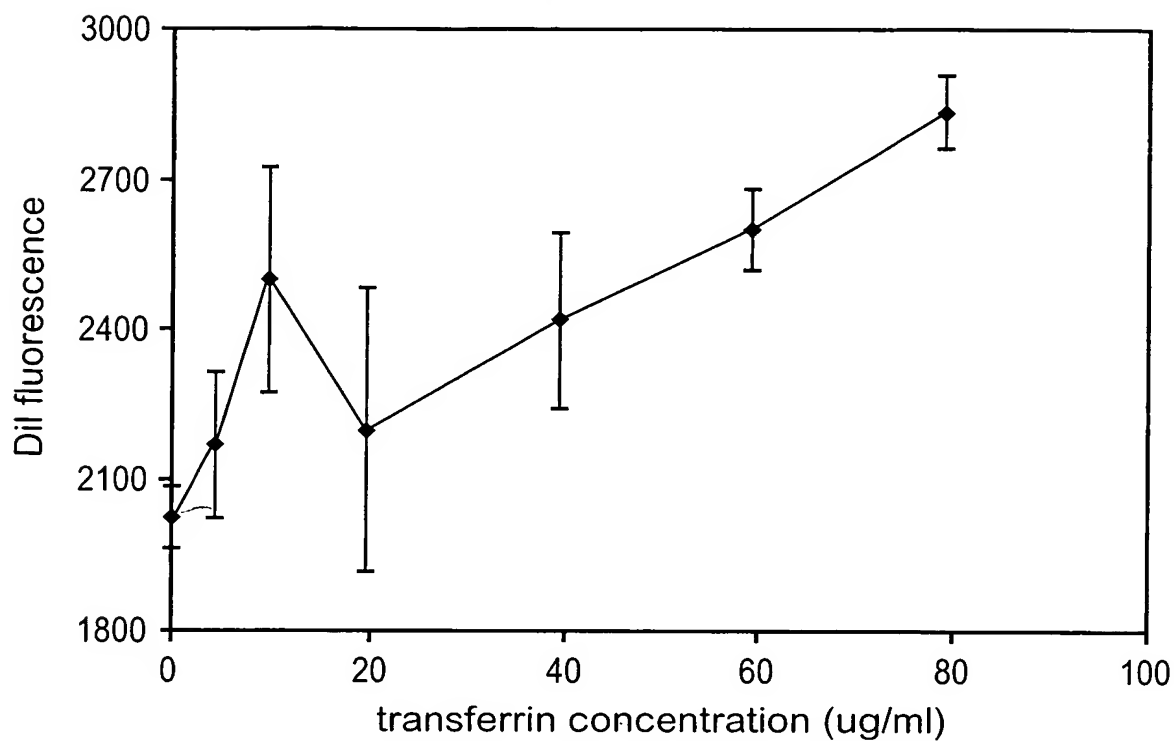


FIG. 12

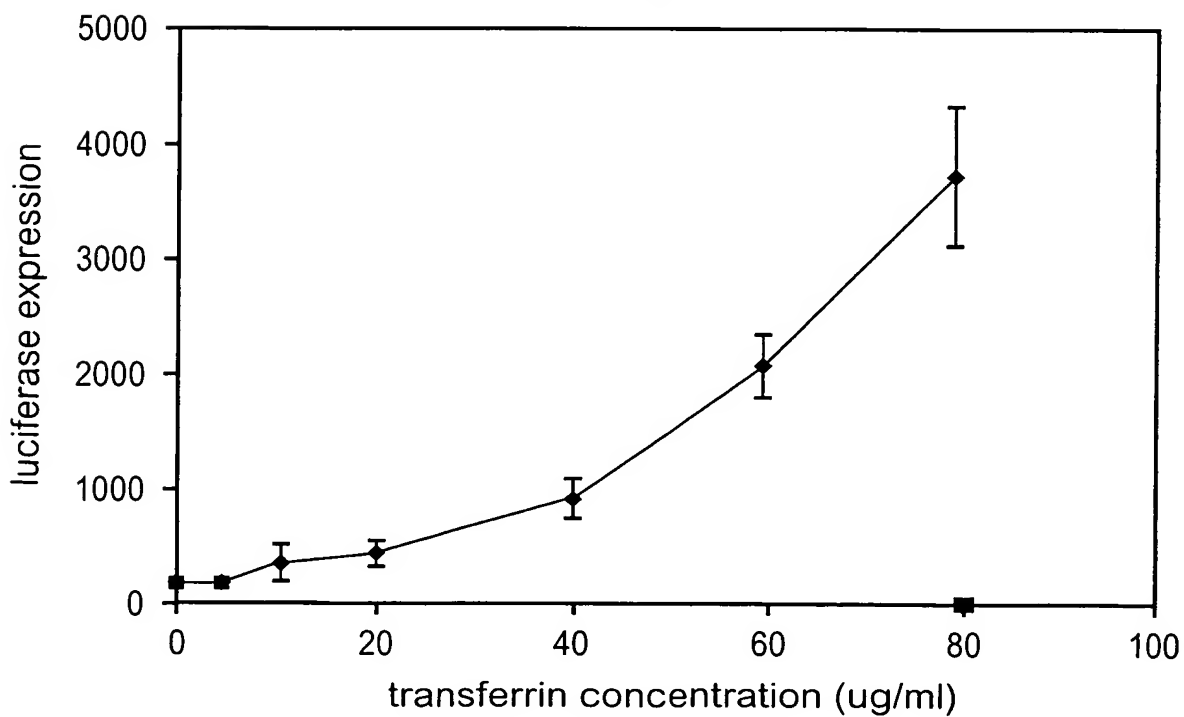
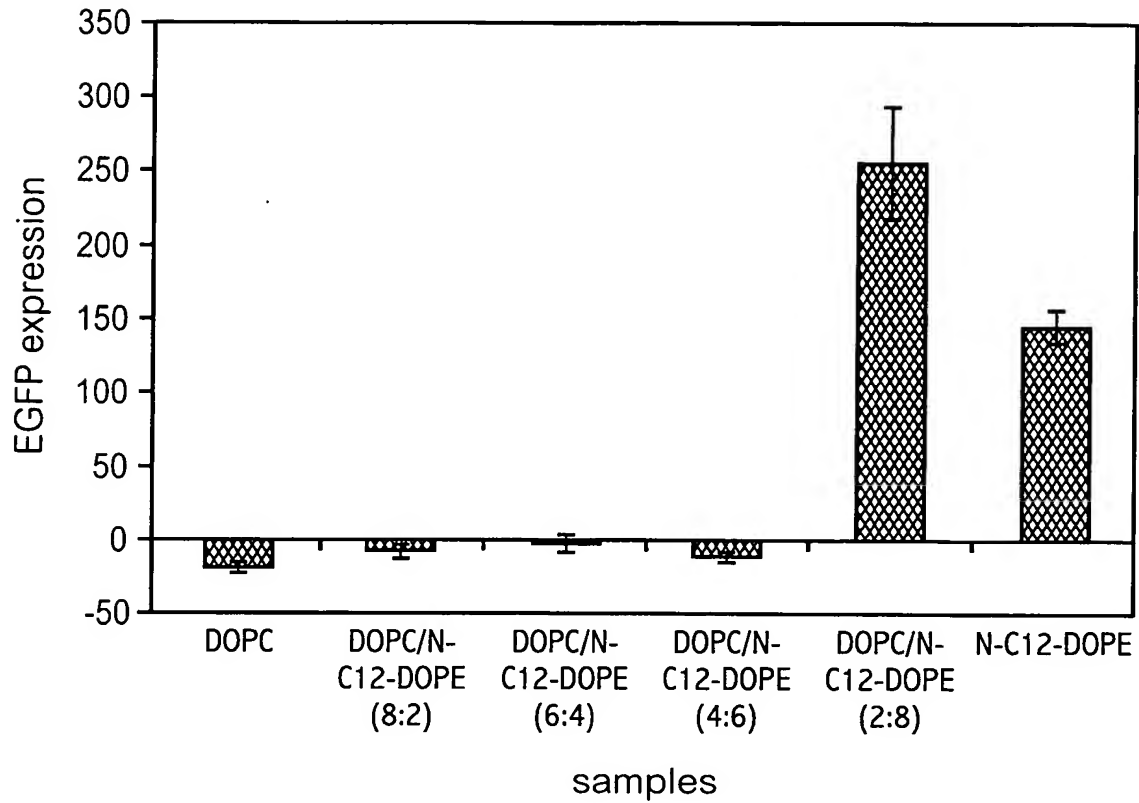


FIG. 13



Sample	Process	Washing	Dextran (MW)	Lipid Conc. (mM)	Dextran Conc. (µg/ml)	Dextran/Lipid Ratio (µg Dextran/mM lipid)	% of Retention
#SA	SPLV	no	TM-RMD (70,000)	26.1	320	12	100%
#SA		yes		16.0	60	3.8	31%
#SB		no	TM-RMD (2,000,000)	26.5	308	12	100%
#SB		yes		15.8	56	3.5	30%
#SC	Gel Hydration	no	Fluorescein (70,000)	19.5	292	15	100%
#SC		yes		10.9	56	5.2	35%
#GA		no	TM-RMD (70,000)	27.2	339	12	100%
#GA		yes		28.7	322	11.2	90%
#GB	Gel Hydration	no	TM-RMD (2,000,000)	26.3	282	11	100%
#GB		yes		28.2	255	9.0	84%
#GC		no	Fluorescein (70,000)	26.3	332	13	100%
#GC		yes		29.0	221	7.6	60%

FIG. 14